

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) An element comprising a support on which is disposed an organic electroconductive polymeric layer containing a conductive polymer having a resistivity of  $1 \times 10^6 \Omega$  or less and a pattern of a printing solution containing a conductivity enhancing agent in contact with said electroconductive layer, such that the resistivity of the areas that are contacted with the pattern of printing solution decreases by at least a factor of ~~10 below  $1 \times 10^6 \Omega$~~  1000.

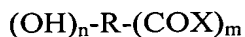
2. (canceled).

3. (canceled).

4. (original) The element of claim 1 wherein the conductivity enhancing agent is an organic compound containing dihydroxy, poly-hydroxy, carboxyl, amide, or lactam groups.

5. (original) The element of claim 4 wherein the organic compound containing dihydroxy, poly-hydroxy, carboxyl, amide, or lactam groups is:

(a) represented by the following Formula II:



II

wherein m and n are independently an integer of from 1 to 20, R is an alkylene group having 2 to 20 carbon atoms, an arylene group having 6 to 14 carbon atoms in the arylene chain, a pyran group, or a furan group, and X is -OH or -NYZ, wherein Y and Z are independently hydrogen or an alkyl group; or

(b) a sugar, sugar derivative, polyalkylene glycol, or glycerol compound; or

(c) selected from the group consisting of N-methylpyrrolidone, pyrrolidone, caprolactam, N-methyl caprolactam, or N-octylpyrrolidone.

6. (original) The element of claim 1 wherein said conductivity enhancing agent is a N-methylpyrrolidone, pyrrolidone, caprolactam, N-methylcaprolactam, N-octylpyrrolidone, sucrose, glucose, fructose, lactose, sugar alcohol, 2-furan carboxylic acid, 3-furan carboxylic acid, sorbitol, glycol, ethylene glycol, glycerol, diethylene glycol, or triethylene glycol, or a mixture of any two or more of these compounds.

7. (original) The element of claim 1 wherein said conductivity enhancing agent is N-methylpyrrolidone, pyrrolidone, caprolactam, N-methyl caprolactam, or N-octylpyrrolidone.

8. (original) The element of claim 1 wherein said conductivity enhancing agent is ethylene glycol, diethylene glycol or glycerol.

9. (canceled).

10. (original) The element of claim 1 wherein said conductivity enhancing agent is one or more than one compound selected from the group consisting of N-methylpyrrolidone, sorbitol, ethylene glycol, glycerol, and diethylene glycol.

11. (original) The element of claim 5, wherein n and m independently of one another denote an integer from 2 to 8.

12. (original) The element of claim 4 wherein the organic compound containing lactam groups is N-methylpyrrolidone, pyrrolidone, caprolactam, N-methylcaprolactam, or N-octylpyrrolidone.

13. (original) The element of claim 5 wherein the conductivity enhancing agent is sucrose, glucose, fructose, lactose, sorbitol, mannitol, 2-

furancarboxylic acid, 3-furancarboxylic acid, ethylene glycol, glycerol, di- or triethylene glycol.

14. (original) The element of claim 1 wherein the concentration of conductivity enhancing agent in the printing solution is 0.5 to 25.0 wt %, based on the weight of the printing solution.

15. (original) The element of claim 1 wherein the concentration of conductivity enhancing agent in the printing solution is 0.5 to 10.0 wt %, based on the weight of the printing solution.

16. (original) The element of claim 1 wherein the concentration of conductivity enhancing agent in the printing solution is 0.5 to 5.0 wt %, based on the weight of the printing solution.

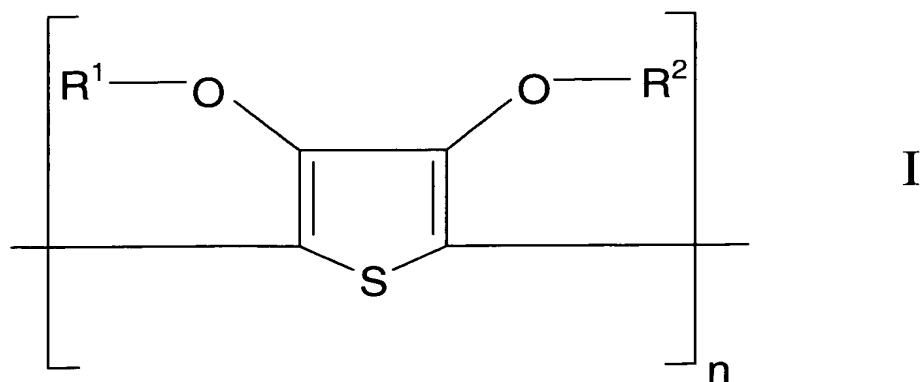
17. (original) The element of claim 1 wherein the conductive polymer is a substituted or unsubstituted pyrrole-containing polymer, a substituted or unsubstituted thiophene-containing polymer, or a substituted or unsubstituted aniline-containing polymer.

18. (original) The element of claim 1 wherein the layer containing the conductive polymer contains 10 to 1000 mg/m<sup>2</sup> dry coating weight of the conductive polymer.

19. (original) The element of claim 1 wherein the layer containing the conductive polymer contains 20 to 500 mg/m<sup>2</sup> dry coating weight of the conductive polymer.

20. (previously presented) The element of claim 1 wherein the layer containing the conductive polymer comprises a mixture containing:

a) a polythiophene according to Formula I;



wherein each of  $R^1$  and  $R^2$  independently represents hydrogen or a C1-C4 alkyl group or together represent an optionally substituted C1-C4 alkylene group or a cycloalkylene group, an optionally alkyl-substituted methylene group, an optionally C1-C12 alkyl- or phenyl-substituted 1,2-ethylene group, a 1,3-propylene group or a 1,2-cyclohexylene group and n is 5-1000;

b) a polyanion compound; and, optionally

c) a film forming polymeric binder.

21. (original) The element of claim 20 wherein the polyanion is an anion of a polymeric carboxylic acid.

22. (original) The element of claim 20 wherein the polyanion is a polyacrylic acid, a poly(methacrylic acid), a poly(maleic acid), or a polymeric sulfonic acid.

23. (original) The element of claim 20 wherein the polyanion is a polystyrenesulfonic acid or a polyvinylsulfonic acid.

24. (previously presented) The element of claim 20 wherein the film-forming polymeric binder, is present and comprises from 5 to 95 wt% of the layer containing the conductive polymer.

25. (previously presented) The element of claim 20 wherein the film-forming polymeric binder, is present and is selected from the group consisting of water-soluble or water-dispersible hydrophilic polymers, maleic acid

or maleic anhydride copolymers, cellulose derivatives, polyvinyl alcohol, and poly-N-vinylpyrrolidone.

26. (previously presented) The element of claim 20 wherein the film-forming polymeric binder is present and comprises gelatin or gelatin derivatives.

27. (previously presented) The element of claim 20 wherein the film-forming polymeric binder is present and is selected from the group consisting of carboxymethyl cellulose, hydroxyethyl cellulose, cellulose acetate butyrate, diacetyl cellulose, and triacetyl cellulose.

28. (previously presented) The element of claim 20 wherein the film-forming polymeric binder is present and comprises an aqueous emulsion of addition-type homopolymers and copolymers prepared from ethylenically unsaturated monomers.

29. (original) The element of claim 28 wherein the monomers are selected from the group consisting of acrylates, methacrylates, acrylamides, methacrylamides, itaconic acid and its half-esters and diesters, substituted and unsubstituted styrenes, acrylonitrile, methacrylonitrile, vinyl acetates, vinyl ethers, vinyl and vinylidene halides, and olefins.

30. (previously presented) The element of claim 20 wherein the film-forming polymeric binder is present and comprises an aqueous dispersion of polyurethanes or polyesterionomers.

31. (previously presented) The element of claim 20 on which an electrode pattern is made by offset printing, screen-printing or ink-jet printing and wherein the polymeric binder is present.

32. (original) The element of claim 1 wherein the conductive layer is applied using spin coating, hopper coating, roller coating, or air knife coating.

33. (original) The element of claim 1 wherein the support is transparent, opaque, or reflective.

34. (original) The element of claim 1 wherein the support is glass, a polymeric film, paper, silicon wafers, or glass reinforced epoxy.

35. (original) The element of claim 34 wherein the polymeric film support is polyester, polycarbonate, polystyrene, cellulose esters, or polyolefins.

36. – 40. (canceled)

41. (original) The element of claim 20 wherein said polyanion is polystyrene sulfonic acid.

42. – 43. (canceled).